朝比奈泰彦*: 地衣類雑記 (§ 150–153)

Yasuhiko ASAHINA*: Lichenologische Notizen (§ 150–158)

§ 150. **Parmelia koyaensis** Asahina in Journ. Japan. Bot. **28**: 67 (1953).

Thallus 140–160 μ crassus; cortex superior 12–15 μ crassus, in sectione pallide flavus; stratum medullare 110–130 μ crassum, in parte superiore strato gonidiali $\pm 15\,\mu$ lato praeditum; hyphae medullares albae, stuppeae, 3 μ latae, statim infra stratum gonidiale cum materia albida in K solubile dense obtectae, caeterum lucidae; cortex inferior fuscus, $\pm 10\,\mu$ crassus.

Reaction.: th. K +, med. K −, C −, KC −, P + rubens.

Mat. chim. prop.: atranorinum, acidum protocetraricum et acidum caperaticum.

Formerly the latter acid (caperatic acid) could not confirmed. Now its identification was carried out by means of paper chromatography.

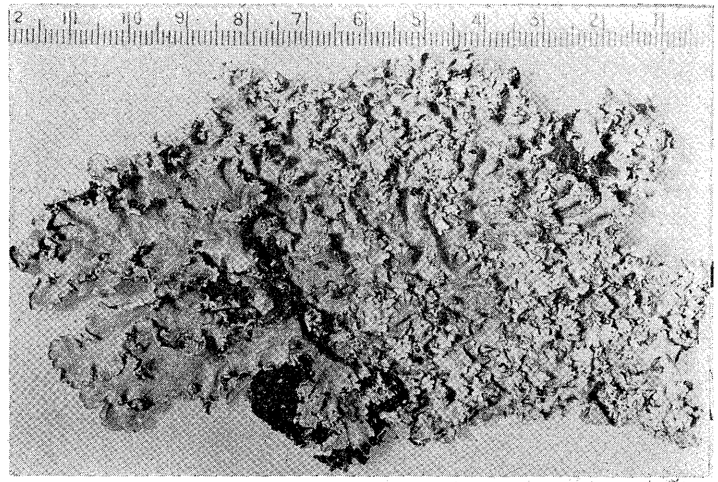


Fig. 1. *Parmelia koyaensis* Asahina.

Corticola, rarely saxicola.

Specim. examin.: Okunoin, Mt. Koya, Prov. Kii, Asahina 1952 (Typus). Kowakidani, Hakone, Prov. Sagami, Asahina 1924. Mt. Koya, Prov. Kii, Numajiri 1926. Sawaji prope Mishima, Prov. Idzu, Asahina 1926. Tochimoto, Chichibu,

* 資源科学研究所, Research Institute for Natural Resources, Shinjuku, Tokyo

Prov. Musashi, Asahina 1933. Motohakone, Prov. Sagami, Asahina 1952. Botanical garden Nikko, Prov. Shimotsuke, Watanabe 1955. Okunoin, Mt. Koya, Prov. Kii, Kurokawa 1957. Nodake, Mt. Unzen, Kiusiu, Asahina et Togashi 1958. Nimandaira, Mt. Arisan, Formosa Asahina 1925. Keitau, Taichu, Formosa Asahina 1933.

Chromatography of the fatty acid:

Benzene extract of *P. koyaensis*	Rf	0.74	0.78
,, ,, of *P. caperata* (caperatic acid)	,,	,,	,,

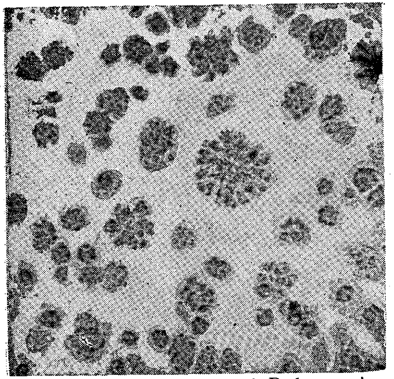


Fig. 2. Benzene Extract of *P. koyaensis* Asahina recrystallized from the G. E. solution (caperatic acid).

Solvent: 5 vol. benzene + 1 vol. propyl alcohol saturated with H_2O; spot visualizing agent: a water solution of bromophenolblue (0.04%), which is made just blue by adding a few drops of a dilute soda solution. The acid spots appear as yellowish oblong patches.

§ 151. **Parmelia nodakensis** Asahina nov. sp.

Syn. *P. koyaensis* Asahina f. *inactiva* Asahina in Journ. Japan. Bot. **28**: 68 (1953).

Thallus foliaceus, sat mollis, plagas usque ad 8 cm latas formans, subrotundatus vel irregulariter expansus, glaucus vel glauco-viridis, profunde laciniatus; laciniae 5–15 mm longae, 3 8 mm latae, eciliatae,

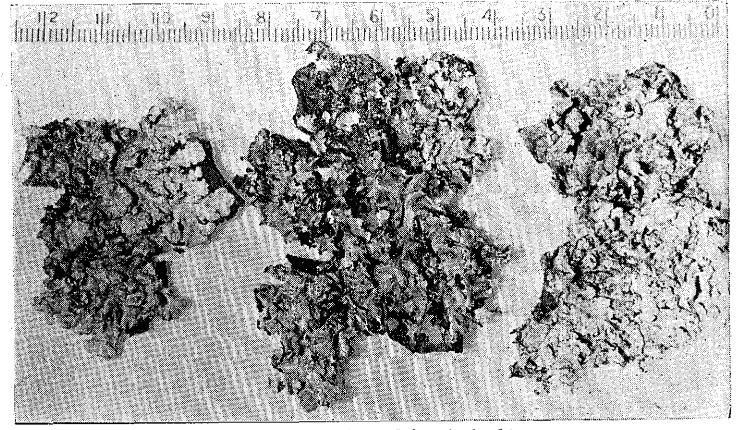


Fig. 3. *Parmelia nodakensis* Asahina.

utrinque lobatae, lobis 2-3 mm latis, axillis angustis, marginibus loborum praesertim centrum versus elevatis, ± imbricatis apicibus rotundato-crenatis; intus albae; subtus nigrae, rhizinis concoloribus, saepe furcatis sat dense munitae, ambitu fuscae et nudae. Apothecia et pycnidia non visae.

Thallus 90-100 μ crassus; cortex superior 6-10 μ crassus, in sectione fere docolor; stratum gonidiale ca 15 μ latum; stratum medullare lucidum, hyphis 3 μ latis, non inspersis; cortex inferior ± 9 crassus, in sectione pallide fuscus.

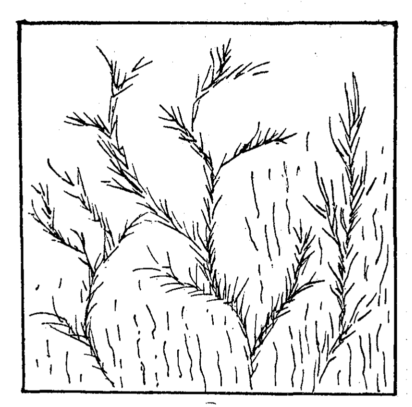


Fig. 4. Benzene Extract of *P. nodakensis* Asahina recrystallized from the G. E. Solution (protolichesteric acid).

Reactions: th. K+, med. K−, C−, KC−, PD−.

Mat. chim. prop.: atranorinum et acidum protolichestericum

Spec. Exam.: Nodake, in Mt. Unzen, Kiusiu, Asahina et Togashi 1958 (typus). Mt. Koyasan, Prov. Kii, Numajiri, 1926; Tanabe-machi, Prov. Kii, N. Ui, 1925. Moto-hakone, Prov. Sagami, Asahina, 1925. Nippara, Prov. Musahi, T. Saito 1943. Keitau, Taichu-siu, Formosa, Asahina, 1933.

Chromatography of the fatty acid:

Benzene extract of P. nodakensis	Rf	0.92	0.94
,, ,, of P. simodensis (protolichesteric acid)	,,	,,	,,

Solvent and the spot visualizig agent being equal to the case of *P. koyaensis* (s. above).

Parmelia koyaensis Asahina resembles *P. crinita* Ach. But it is distinguished from the latter by the prominent marginal incisted lobation, smaller isidia, eciliate margin and especially by the different chemical ingredients. *Parmelia nodakensis* Asahina closely resembles *P. koyaensis* Asahia, but it is distinguished by the thinner thallus, hyaline medulla and different chemical ingredients.

筆者は本誌 28 巻 67-68 頁で *Parmelia koyaensis* と命名した新種を発表し且つ其品種 f. *inactiva* なるものを区別した。其当時から f. *inactiva* の葉体の非薄なる点で之を同一の種とするに若干の疑問を持つて居たが今回両者の含有脂肪系酸が全く異なることを確定したので之を *koyaensis* から別けて *nodakensis* と云う新種を作つた。

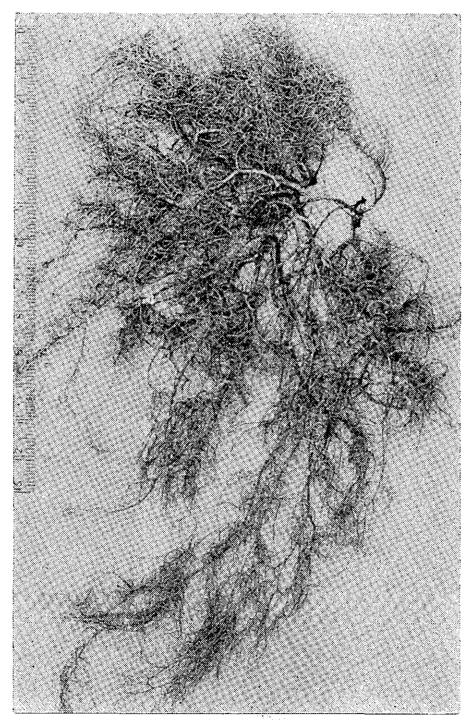


Fig. 5. *Usnea glabrescens* (Nyl.) Vain.

§ 152. **Usnea glabrescens** (Nyl.) Vain.

Motyka, Lich. Gener. Usnea St. Monogr. p. 299.

Thallus fruticulose, ±10 cm long, suberect or subpendulous, in vivo pale green, afterwards becoming pale brown; basal part black, up to 2 mm thick; principal stem close to the basal part tufted branched; primary branches up to 1.5 mm thick, terete or more less lacunose, annulate cracked, pale flesh-colored, papillate, papillae minute, concolorous; upwards dichotomously and sympodially divided, gradually attenuate, minutely verruculose; towards the apices erosive soralia frequent with sharply limited circumference; soredia minutely granular (not aciculate); perpendicular branchlets frequent along the lower part of the thicker branches.

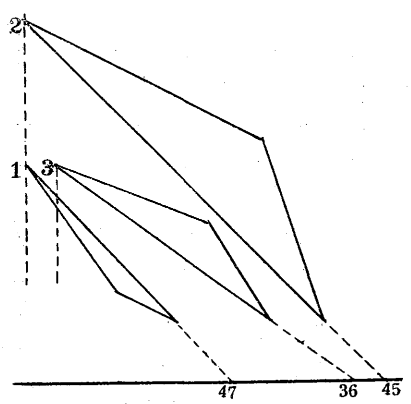
Cortex 300-300 μ thick, stiff, almost uniform; medulla white, 190-300 μ thick, stupeous; axis almost cylindrical, occupying 33-40% of the thickness of the corresponding thallus.

Reaction.: med. K+yellow→redish, PD+deep yellow.

Mat. Chim. Propr.: usnic acid and norstictic acid.

Specimens examined: Daimon Pass, Ikenotaira, Prov. Shinano.

Graphs and RS-values of *Usnea glabrescens* (Nyl.) Vain.



Ffg. 6. Grap of RS-Values of *U. glabrescens* (Nyl.) Vain.

	RS	θ	A.Q.%
1) diam. 1.12 mm			
126 : 195 : 463	1 : 1.5 : 3.6	47°	41.4
2) diam. 1.2 mm			
75 : 300 : 450	1 : 4 : 6	45°	37.5
3) diam. 0.9 mm			
8.25 : 217 : 300	1 : 2.6 : 3.6	36°	33.5

Motyka mentions in his Monograph p. 300...... cortex : medulla : axis = 110 : 180 : 380, from which its RS is calculated as 1 : 1.5 : 3.5, coinciding with (1) of the above table.

Smaller individuals of this species are apt to be confounded with *U. comosa* subsp. *praetervisa* Asahina, which contains also norstictic acid. But the latter differs from *U. glabrescens* by the verruculous soralia and isidiose soredia.

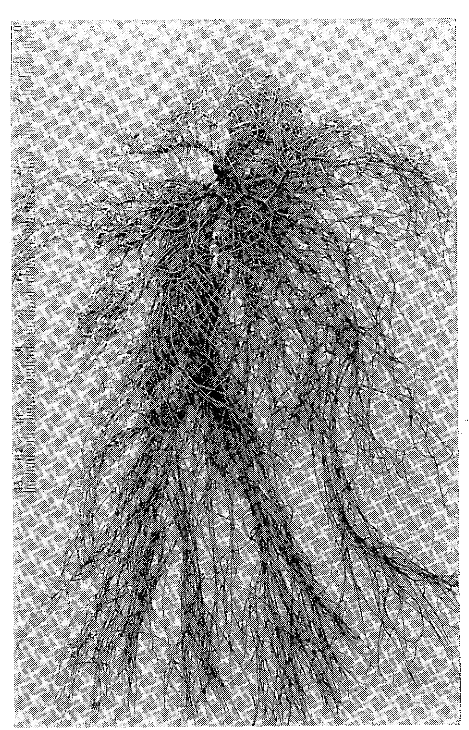
§ 153. **Usnea glabrescens** (Nyl.) Vain.

subsp. **asiatica** Asahina nov. subsp.

Thallus fruticulosus, pendulus, 8-15 (-25) cm longus, in vivo pallide viridis, in herbario post longum tempus fuscescens, basi ca 1 mm lata, nigra, supra basin caespitose ramosus. Rami primarii usque ad 1.5 mm lati, teretes, papillosi, sursum dichotome et sympodialiter divisi; rami secundarii elongati, filiformes, per totam longitudinem fere uniformes, soraliis non verruculoso elatis, vulgo in thallo erosis dispersi; soredia granularia (non acicularia).

Cortex 60-150 μ crassus, duriusculus, inequalis; medulla alba, stupea, 100-200 μ crassa; axis plus minusve applanatus, 250-500 μ crassus, 40-50% dismetri thalli occupans.

Raction.: med. K + demum rubescens, PD + lutescens.



Ffg. 7. *Usnea glabrescens* (Nyl.) Vain. subsp. *asiatica* Asahina.

Mat. chim. propr.: acidum usnicum et acidum salacinicum.

Specim. examin.: Daimon Pass, Ikenotaira, Prov. Shinano et Hot Spring Shinyu, Mt. Tadeshina, Prov. Shinano.

Graphs and RS-values of *U. glabrescens* subsp. *asiatica* Asahina.

	RS	θ	A.Q.%
1) diam. 1.03 mm			
135 : 120 : 523	1 : 0.89 : 3.9	56°	50
2) diam. 0.97 mm			
90 : 187 : 420	1 : 2.1 : 4.7	50°	43.5
3) diam. 0.6 mm			
60 : 112 : 255	1 : 1.9 : 4.2	47°	42.5

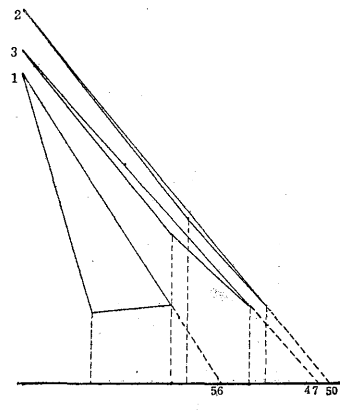


Fig. 8. Fragh of RS-Values of *Usnea glabrescens* (Nyl.) Vain. subsp. *asiatica* Asahina.

This subspecies closely resembles *U. comosa* subsp. *melanopoda* Asahina, from which it is distinguished by the forms of soralia and soredia.

Usnea comosa 系のどの亜種でも其粉芽嚢 Soral は突出した顆粒状をなし其頂点から針状の粉芽が発生するのである。然るに *U. comosa* subsp. *melanopoda* と subsp. *praetervisa* としてある標本包の中に往々其粉芽嚢が皮層上に平坦な円形又は楕円形の腐蝕された様な斑点となり且つ粉芽も針状でなく球形顆粒状をして居る個体が夾雑して居ることを認めた此の粉芽嚢を持つものは *Usnea glabrescens* (Nyl.) Vain 又は其亜種として取扱わるべきものと考える。但しその type 型の化学成分を決定することは目下困難であるが筆者の所持する欧洲産並に北米産各1箇の標本が何れもノルスチクチン酸を含むので仮りに type 品も同様と仮定し，これに対し形態的に全く同一でサラチン酸を含むものを subsp. *asiatica* と命名して区別した。Motyka の Monograph にある *U. glabrescens* の記載から RS 価並にグラフを作つて見ると筆者の同定した日本産のものの数値によく合致する。